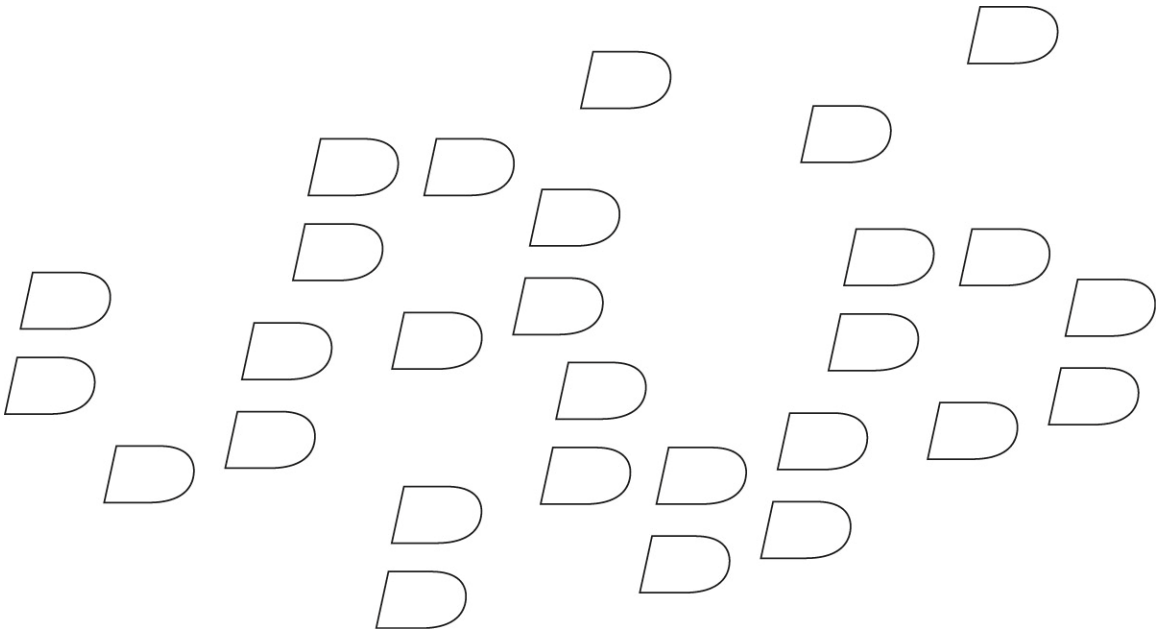

BlackBerry Java Development Environment

Version 4.2.1

Release Notes and Known Issues List

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About the BlackBerry JDE

The BlackBerry® Java™ Development Environment is a fully integrated development environment and simulation tool for building Java 2 Platform, Micro Edition applications for Java-based BlackBerry devices.

It is a Mobile Information Device Profile (MIDP) compliant J2ME environment for developers who wish to maintain seamless portability in their wireless applications.

Use the BlackBerry JDE to build applications that take advantage of the unique features of the BlackBerry device, such as desktop synchronization applications, GPS applications, and applications that push content proactively to BlackBerry devices in environments that use the BlackBerry Enterprise Server. The BlackBerry JDE provides ways for BlackBerry device applications to establish network connections to servers on the Internet or the corporate intranet.

Each version of the BlackBerry JDE comes with the BlackBerry device simulators that were available when that version of the BlackBerry JDE was made public. You can download additional BlackBerry device simulators from the BlackBerry Developer Zone web site:

http://www.blackberry.com/developers/index.shtml.

Documentation

The *BlackBerry Java Development Environment Development Guide* and the *BlackBerry Java Development Environment Fundamentals Guide* are available on the BlackBerry Developer Zone web site:

http://www.blackberry.com/developers.

Getting started with the BlackBerry JDE

You can start the BlackBerry® Java Development Environment in one of two ways:

1. From the Start menu, select:

   Programs > **Research In Motion** > **BlackBerry JDE 4.2.1**> **JDE**

2. Invoke ide.bat, located in the bin subdirectory of the BlackBerry JDE installation directory.

Internationalization

The BlackBerry® Java Development Environment contains tools that assist with internationalization (i18n) efforts. It is important to follow naming conventions. All the sample applications include the use of i18n. Please review those samples for more information.

Note: The .rrc and .rrh files must exist in the same directory for successful compilation.

Note: You should define resource keys in uppercase letters only.

See the *BlackBerry Java Development Environment Development Guide* or the *BlackBerry Integrated Development Environment Online Help* for more information about localization.

Code samples

A sample BlackBerry JDE workspace exists in the samples subdirectory of the BlackBerry JDE installation directory. It contains sample programs that demonstrate how to design and build Java applications for BlackBerry devices.

The following sample applications include server components. Invoke the run.bat script in the specified folder to start the server component:

- 3.1 The httppushdemo sample includes a server component at samples/com/rim/samples/server/httppushdemo

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- 3.2 The socketdemo sample includes a server component at samples/com/rim/samples/server/socketdemo
- 3.3 The browserpushdemo sample includes a server component at samples/com/rim/samples/server/browserpushdemo
- 3.4 The serialportdemo sample includes a server component at samples/com/rim/samples/server/serialportdemo

  The README.txt file in this folder contains further details for configuring and starting the server.
- 3.5 The smsdemo sample includes a server component at samples/com/rim/samples/server/smsdemo
- 3.6 The BrowserMultipartPushDemo sample includes a server component at samples/com/rim/samples/server/browsermultipartpushdemo
- 3.7 The GPS Demo sample includes a server component at samples/com/rim/samples/server/gpsdemo

BlackBerry JDE Version 4.2.1 system requirements

Your system must meet the following requirements to support the BlackBerry® Java® Development Environment:

- Microsoft® Vista™, Windows® 2000, or Windows XP
- Intel® Pentium® III processor or compatible (800 MHz or higher)
- 256 MB RAM
- 100 MB free hard disk space
- Java™ SE Development Kit (JDK) Version 5 or Version 6 (download from the Sun Microsystems web site). The <bin> directory of the Java SDK must be part of the system's PATH variable.
- DirectX 8.0 or greater (for the BlackBerry device simulator)

Functional changes

This section lists functional changes for BlackBerry® Java® Development Environment (JDE) Version 4.2.1.

Application control API	You can use the ApplicationPermissions class to streamline firewall prompts and verify BlackBerry® device user or administrator security barriers for third-party applications on the BlackBerry device.
BlackBerry device idle timer	EventInjector and Backlight.enable(): You can use the EventInjector class and Backlight.enable() method to reset the BlackBerry device idle timer if the following conditions are met: 1. An IT Policy called SecurityPolicy.ALLOW_RESET_IDLE_TIMER exists and is set to 'true'. For BlackBerry devices with a BlackBerry® Enterprise Server connection, the BlackBerry Enterprise Server administrator must turn on this feature. 2. An application control called "Security Timer Reset" exists and is set to ‘Allow’ or ‘Prompt’. For BlackBerry devices with a BlackBerry Enterprise Server or a BlackBerry® Internet Service connection, the BlackBerry device user needs to turn this feature on.
BlackBerry Maps	Location document tags:

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	You can now use many new optional tags to add information for a location. The new tags include country, postalCode, fax, url, email, and rating. Display address location: You can display the location for an address in the address book using BlackBerry Maps. Display a route: You can display a route between multiple locations using BlackBerry Maps. Open BlackBerry Maps to a specific view: You can use the Invoke API to open the BlackBerry Maps application to a specific view using specific values for latitude, longitude, and zoom. Add menu items to the BlackBerry Maps application: You can register menu items and display them in the BlackBerry Maps application.
BlackBerry ContactList	You can use the BlackBerryContactList.choose() method to choose any contact from the address book. A Contact or BlackBerryGroupContact PIMItem will be returned.
BlackBerry Messenger™	You can create an application that integrates with the BlackBerry Messenger application. This is useful for games played with an opponent over BlackBerry Messenger.
BlackBerry wireless transceiver	You can create an application that can turn the BlackBerry wireless transceiver on or off programmatically.
Invocation API	BlackBerry Calculator application: You can use the APP_TYPE_CALCULATOR constant parameter with the Invoke.invokeApplication method to launch the BlackBerry Calculator application from a BlackBerry device application. Bluetooth Setup application: You can use the APP_TYPE_BLUETOOTH_CONFIG constant parameter with the Invoke.invokeApplication method to launch the Bluetooth Setup application from a BlackBerry device application. Search application: You can use the APP_TYPE_SEARCH constant parameter with the Invoke.invokeApplication method to launch the Search application from a BlackBerry device application. A SearchArguments object specifies values to pre-populate the Text and Name fields in the Search application.
Javaloader	You can use Javaloader to retrieve information on ▪ sibling .cod files ▪ size of code section ▪ size of data section ▪ size of initialized data ▪ number of class definitions ▪ list of signatures applied to a .cod file To retrieve this information, issue a command using the following format: javaloader info [-v] <.cod file> For example: javaloader.exe info -v MyApplication.cod
JSR177	On BlackBerry devices that are running platform version 2.3 or later and operate on EDGE networks, you can create BlackBerry applications that use the APDU and

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	JCRMI APIs defined by JSR 177, the Security and Trust Services APIs specification, to call the methods of an application on a smart card.
Mail API	You can use the Store.getUnreadMessageCount() method to retrieve information on the number of unread messages on a BlackBerry device.
Mobile Media API	Player objects can control video display by retrieving a VideoControl object from a Player using the Player.getControl method: ▪ Specify the mode of video display (one of USE_GUI_PRIMITIVE or USE_DIRECT_VIDEO) ▪ Set the location of the video with respect to the canvas that displays the video ▪ Access the x-coordinate and the y-coordinate of the video with respect to the GUI object that displays the video ▪ Show or hide the video ▪ Resize the video image ▪ Set the size of the video clip render region to fullscreen ▪ Return the width and height of the source video ▪ Return the actual width and height of the current render video
Modify information in a .jad file	You can use the Updatejad tool to process .jad files and perform the following actions: ▪ Correct the .cod file sizes listed in a .jad file. The .cod file sizes listed in the .jad file change after you use the BlackBerry® Signing Authority Tool to sign .cod files. ▪ Create .jad files that reference multiple .cod files. ▪ Add additional attributes to a .jad file. If you try to add an attribute that already exists in the .jad file, the existing attribute is not overwritten.
Register a file explorer menu item	In the File explorer application, you can register a menu item for files of different mime types. When a BlackBerry device user selects or highlights a file with the corresponding MIME type from the file explorer application, the menu item is added to the file explorer menu. If a BlackBerry device user selects the menu item, the selected file's filename is sent to the registering application.
SMS view and edit screens	You can register menu items and display them in the SMS edit and view screens.

Known issues

This section lists known issues for the BlackBerry Java Development Environment (JDE) Version 4.2.1.

BlackBerry JDE http push demo sample

Using the http push demo with the BlackBerry MDS Simulator does not result in simulated push communication.

Impact: The http push demo included with the BlackBerry JDE does not function as expected.

Workaround: None.

BlackBerry applications that use a USB connection

If an application invokes the USBPort.register/unregisterChannel() method using a channel name that begins with 'RIM', a ControlledAccessException is thrown.

Impact: BlackBerry applications that use a USB connection, including BlackBerry JDE sample applications, cannot invoke the USBPort.register/unregisterChannel() method

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using a channel name that begins with 'RIM'.

Workaround: Invoke the USBPort.register/unregisterChannel() method using a channel name that does not begin with 'RIM'.

BlackBerry Device Simulator

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When you start the BlackBerry Device Simulator, by default it simulates a network connection that is in a coverage area. If you configure the BlackBerry Device Simulator to simulate a network connection that is not in a coverage area and is not the default connection when the BlackBerry Device Simulator starts, the BlackBerry Device Simulator stores UDP packets.

Impact: If you configure the BlackBerry Device Simulator to simulate a network connection that is not in a coverage area and is not the default connection when the BlackBerry Device Simulator starts, UDP packets are stored instead of being sent over the connection.

Workaround: Delete the network that is not in a coverage area:

1. Select **Simulate** > **Network Properties**
2. In the **Networks** list, select the network to delete.
3. Click **Delete**.
4. Click **Close**.
5. Restart the BlackBerry Device Simulator.

System API

Invoking System.getProperty("microedition.locale") will only return the value specified in the System Locale field in the BlackBerry IDE if the corresponding language .cod file has been loaded into the BlackBerry device simulator.

Impact: System.getProperty("microedition.locale") does not function as expected.

Workaround:

1. Navigate to the C:\Program Files\Research In Motion\BlackBerry JDE 4.2.0\simulator directory.
2. Open the .xml file for the BlackBerry device you want to simulate.
3. Add text to the .xml file for the language you want to use. For example, to add French to the BlackBerry Pearl™ 8100 smartphone simulator, add the following text to the 8100.xml file:

   <Application>net.rim.blackberry.lang.fr</Application>

Deprecated and new APIs

See **4.2.1 New Exposed APIs.txt** and **4.2.1 New Deprecated APIs.txt** in the **C:\Program Files\Research In Motion\BlackBerry JDE 4.2.1** directory for more information about API changes for the BlackBerry Java Development Environment Version 4.2.1.

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